

ABSTRACT

The present invention produces nuclide transmutation using a relatively small-scale device. The device 10 that produces nuclide transmutation comprises a structure body 11 that is substantially plate shaped and made of palladium (Pd) or palladium alloy, or another metal that absorbs hydrogen (for example, Ti) or an alloy thereof, and a material 14 that undergoes nuclide transmutation laminated on one surface 11A among the two surfaces of this structure body 11. The one surface 11A side of the structure body 11, for example, is made a region in which the pressure of the deuterium is high due to pressure or electrolysis and the like, and the other surface 11B side, for example, is a region in which the pressure of the deuterium is low due to vacuum exhausting and the like, and thereby, a flow of deuterium in the structure body 11 is produced, and nuclide transmutation is carried out by a reaction between the deuterium and the material 14 that undergoes nuclide transmutation.